OCCUPATIONAL STRESS AND ITS MANAGEMENT IN IT SECTOR IN INDIA

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Abstract

Stress is a mental state of strain or tension which arises from adverse or demanding circumstances. Occupational stress means ongoing stress which an employee experiences due to the responsibilities, conditions, environment, or other pressures specific to an occupation. The employees in the IT sector are known as knowledge workers as the nature of the job is such. Technological advancement, which is the improvement and innovation of the utility of science, is at fast pace in IT sector. The first objective of this paper is to gather insights of practical nature from employees in IT sector regarding their perceptions of stress, stressors, consequences and its mitigation measures. Opinions suggest that stress among techies in India can be caused by a mix of factors, including long hours before computer, strict deadlines, implicit and explicit pressure to perform, insecure jobs, work life imbalances, and international competition in the industry. The second objective of this paper is to quantitatively evaluate the vocation - educational background linkages. It was found that such a strong correlation indeed exists. It is recommended that IT companies, especially talent managers need to include the connotations of educational background of candidates on their ability to cope with potential occupational stress.

Keywords:- stress, information technology, occupational stress, Career and educational background, coping with stress.

The IT sector in India is steadfast becoming a significant contributor to the country's economy. The IT industry began to take shape in the late 20th century in India, when the government launched friendly export policy of software services. Soon Indian IT companies, such as TCS, Infosys, and Wipro started to provide software development and IT services to overseas clients.

Currently, the IT industry in India is one of the powerful sectors in the world, with revenue of over 190 billion US

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dollars. Exports of over 150 billion US dollars are realised in 2021. The sector has evolved as one of the biggest employers in the country. Key strength is the expertise in software development, consulting of ICT services and outsourcing. The growth of the Indian IT industry can be traced to several factors, including the availability of skilled knowledge workers, a conducive business environment, and friendly government policies. The IT industry in Kerala kicked off with the establishment of the Technopark in Thiruvananthapuram. This was the first tech park in the nation and provided a base for IT firms to set up their operations in the Kerala. This paper is based on inputs from employees in Technopark only. Sector brings revenue of over 1 billion US dollars and gives livelihood to over 60,000 professionals. The state is also home to Infopark in Kochi, and Cyberpark in Kozhikode. Kerala's knowledge workers are renowned for its expertise in software development, consulting in IT and BPO services.

II. Statement of the Problem

Occupational stress is a mental tug of war between mental state and willingness to perform the job upto the actual abilities. Stress is the negative of excitement; a combination of feelings of anxiety and tension that occur when the demands placed on an individual are thought to exceed his/her diluted perceived ability. The studies made in the area of stress connecting prior educational background and the nature of IT job is being attempted. A thorough interview covering all determinants of stress and coping mechanisms is a prerequisite before decoding the connection, if any between educational background and vocation.

III. Objectives of the Study

Research Question

Mental turbulence of researcher as to "whether IT & NON-IT education has anything to do with felt stress in IT jobs" led to the framing of the following objectives for the study.

1. To gather insights about the causes and consequences of stress and coping strategies being practiced by employees in Technopark, Thiruvananthapuram, Kerala.
2. To investigate the relationship between stress levels of employes in IT sector & their prior educational background.

IV. Scope of the Study

The scope of the study is confined to 50 employees choosen from Technopark, Thiruvananthapuram, Kerala state. Judgement sampling is used for selection of firms and stratified sampling is deployed to investigate the second objective. Interviews were conducted to draw insights relevant to first objective and may have biases. The study revolves around and is confined to a niche area of the relationship between educational background and the nature of IT profession.

V. Significance of the Study

The study is significant as the meticulous selection of employees is the key factor in the eventual success of any firm. So the educational background and

credentials prior to onboarding have relevance as it implies or signal aptitude for knowledge based jobs. Moreover there exists a literature gap in studies connecting campus hirings and tenure of such employees in IT careers. So, which campus offering which courses needs clarity?

VI. Data Sources and Methodology

Both primary and secondary data were collected and used for the present study. Four well established IT firms (Phase I - Technopark) with more than 250 employees were chosen based on judgement from Technopark, Trivandrum for the study. Stratified random sampling technique was used for the collection of primary data. 25 employees each from IT based and Non IT based educational background counts to a total of 50 respondents. Tools used for include an Interview schedule specifically developed for the purpose and an opinion survey using Likert's Five Point Scale. Tools used for analysis were correlation and chi-square test. Period of study was for 2 months.

To investigate the objective, the following hypotheses were formulated to know the level of significance between educational background and the stress level.

VII. Hypotheses:

H0-There is no significant relation between educational qualification and stress level of employees.

H1-There is significant relation between educational qualification and stress level of employees.

VIII. Review

S.Viniba (2016) identified that work pressure and multiple role overload are the prime determinants of stress among IT professionals in the cities of the state of Tamilnadu in India. Naveen Ramesh et al. (2016) opined that stress in techies in Bangalore was neither alarmingly high nor low, but is likely to go up, calling for stress interventions in the near future. Sreekumar V.N. (2016) stated that heightened occupational stress levels lead to divorces and troubles in work life balance of smart professionals. Hiteshwarib Jadeja and Dr. Monica Verma (2016) pinpointed the primary reasons of stress in various service industries as organisational culture, stiff competition, excessive workload, tight deadlines, resource deficiency, role conflict, gaps in communication and general ambiguity. Impact of stress on job performance is comparatively higher for techies. Pammi Sesha Srinivas et al., (2015) did cyclic meditation/yoga on IT professionals in Bengaluru, Karnataka state.

The two months long intervention resulted in a reduction of 34.77 per cent of stress perception and 19.51 per cent in anxiety. Minali Dutta (2015) studied the occupational stress and job satisfaction of smart labour force in Bangalore. The results revealed that lion majority of the professionals were prone to depression, anxiety or loneliness. V. Padma et al., (2015) identified that the stress scores were sizeable in the professionals who are already prone to diabetes, hypertension and obesity. B.Prathyusha et al. (2015) conducted a survey among 150 software professionals in Hyderabad city. The

results traced the existence of average to high level of vocational stress among them. Dr.V.Lazar (2014) outlined stressors of knowledge workers as organisational climate, work burden management, individual responsibility, superior backing, and hectic pace of routine and broken relationships. B.Prathyusha et al., (2014) studied professionals in various software companies in Hyderabad and delineated diet, adequate sleep, physical exertion, yoga, and professional mediation as the solutions for coping with stress.

Manish A. Prasad et al., (2014) studied the Knowledge, Attitude and Practices of stress among digital associates in Nagpur. They concluded that 71 per cent of the professionals had the knowledge of risks of lengthy computer usage, but none properly applied counter exercises on continual basis. Darshan et al., (2013) studied the stress experienced by IT personnel and noted that those who faced high levels of stress have ten fold higher risk of depression and six fold higher risk of psychiatric issues. T.Thirumaleswari (2013) outlined the two prominent stress relief measures adopted by the IT professionals in Chennai as walking and sleeping.

Dr.A.Chandra Mohan (2013) in his study confirmed a positive correlation between self esteem of employees and the levels of stress they encounter. Ankireddy Sailaja et al., (2013) studied the five types of job stressors including workplace stressors, culture related stressors, role stressors, personal enrichment stressors and interpersonal stressors among professionals in Bangalore. Results showed high correlation between organisational and role stressors. S.Arun Vijay (2013) studied the work-related musculoskeletal health disorders among IT professionals in India and found that two - third of them were suffering from neck pain and one - fourth suffer low back pain. M.V.Paithankar et al., (2012) found that problems like neck and finger pain is more of a perception and it may not have straight relation to number of working hours. Deepti Pathak (2012) and Dr.Vandana Singh Gahlan (2014) confirmed that there was a negative correlation between role stress and job satisfaction.

Dr. Archana Ugale and Dr. Arjun P. Ghatule (2011) outlined the top occupational stressors as deadlines; obsolesce of skills, and lengthy hours. Jakkula Rao and Chandriah (2011) upheld in their studies that occupational stress is negatively correlated with health of mind. Uma Mageswari S. and Prabhu N.R.V (2011) studied the stressors in ITES employees in Chennai. Long hours and changes in organisational structure were the key sources of stress. The stress management strategie being adopted are supportive cultures, stress mitigation programs, tracing triggers, planned physical activities, job redesign, spirituality, life style modifications and counseling. Seema Bhatt and Pramod Pathak (2010) found that gentleman experienced more stress than the female professionals. Karad B. (2010) identified that accumulated stress can lead to physiological, physical and psychosomatic issues, which in turn reduces the productivity and health of IT professionals in Pune.

IX. Analysis (Qualitative) - Objective No 1

a. Stressors:

Whenever events, situations, or conditions seem threatening, challenging, or demanding, human beings face stress, which could trigger physiological or psychological consequences. Stressors can be external to the firm, such as family relationship problems, or internal, such as lack of team cohesiveness. Some of the noteworthy occupational stressors are discussed in Table 1 given.

b. Consequences of stress in employees:

Experiencing stress is common in the workplace, and it can have serious implications on employees. The term "consequences" refers to outcomes that follow a particular action. Table 2 shows the taxonomy of consequences of stress.

c. Coping with occupational stress

Occupational stress can have adverse effects on an individual' health, as well as their productivity. There are several coping mechanisms which help reduce

Table 1

Sources of Stress

Sources			
Life Stressors		**Organisational Stressors**	
Life events	Lifecycle changes	Industrial relations	Screen time
Work life balance	Career changes	Supervision and Leadership	Ethical dilemma
Financial pressures	Hectic pace of life	Organisational change	Work timings
Personality	Hidden reasons	Communication barriers	Performance Appraisal

Source: Primary Data

Table 2

Consequences of Stress

Consequences			
Physiological	**Behavioral**	**Cognitive**	**Emotional**
Sleeplessness	Restlessness	Concentration lapse	Loneliness
Dizziness	Anger	Memory lapses	Social withdrawal
Sweating	Substance abuse	Indecision	Sudden breakdown
Respiration rate	Arguments	Perception issues	Anxiety
Heart beat	Overdependance	Nightmares	Depression
Fainting	Absenteeism	Pessimism	Lack of confidence
Slumped postures	Addictions	Suicidal tendency	
Frequent pee	Procastination		
Constipation	Careless grooming		
Bruxism	Accident prone		
Eating issues	Escapism		
High BP			
Loss of libido			

Source: Primary Data

occupational stress. Some of these coping mechanisms are being discussed in Table 3.

X. Analysis (Quantitative) - Objective No 2

Testing of hypothesis:

Correlation.

1. Ho-There is no significant relation between educational background and stress level of employees in IT sector.

2. H1-There is a significant relation between educational background and stress level of employees in IT sector.

Interpretation

There is a positive relationship between educational background and stress level of employees in IT sector. In this circumstance the null hypothesis is rejected and accepts the alternate hypothesis.

XI. Findings

1. Stress among techies in India can be caused by a mix of factors, including long working hours, demanding deadlines, pressure to perform, job insecurities, work-life imbalance, and cutthroat competition in the industry.
2. Acute stress can lead to negative consequences, including emotional, physical, and mental exhaustion which could lead to burnout and job dissatisfaction.
3. Interviews mention coping mechanisms, including time management, prioritization of tasks,

Table 3

Mechanisms for Stress Management

Mechanisms			
Individual		**Organisational**	
Excercise	Use of Humour	Stress awareness programs	Job redesign
Eliminate stressor	Recreation	Stress management training	Job rotation
Communicate	Meditation	Time management training	Check ups
Self talk	Yoga	Company trips, Picnics	Counseling
Positive thinking	Stress diary	Reward system redesign	Prayers
Delegation	Hobbies	Quiet rest rooms, Cafeteria	Consultants
Balanced diet	Pills	Sensory Stimulants	
Sleep	Transportation		

Source: Primary Data

Table 4

Symmetric Measures

Measures					
Interval by Interval	Pearson's R	0.282	0.125	2.037	0.047
Ordinal by Ordinal	Spearman	0.356	0.127	2.641	0.110
Valid Cases		51			

Source: Primary Data

use of breaks, mindfulness, meditation, regular exercise, and social support, and friends and family.

4. The felt stress level is having significant correlation with the academic background. Interest of a person, to an extent lies hidden in his chosen academic stream of study.
5. Diversity and Inclusion are the key words in MNCs. But diversity of educational domains is largely undermined. The definition of Inclusion too can be broadened with insights from the variable under consideration in this paper.
6. Quantitative evaluation of the vocation – educational background linkages shows that such a strong correlation indeed exists.

XII. Suggestions

1. One firm suggestion is that aptitude towards smart work needs to be assessed, before opening the front door to those who are from non-IT based academics.
2. Campus hirings can be from synergistic institutions, in terms of domain. A different sort of orientation needs to be envisioned for the said category of entrants.
3. Track, monitor and be aware of dilution in inclination of non-IT workforce towards tech jobs.
4. Innovative exit strategies like 'pay to quit' for outliners may be devised to ensure that all sync equally well to organizational culture, irrespective that they were in the past.
5. Companies in the tech industry exhibit a shift to digital learning resources. Instead on site employee wellness programs may help their employees absorb stress better.

Scope of Future Studies.

1. The effect of 'work from home' on all the new age contexts of occupational stress.
2. New behavioral models of new age stress and its unexplored antecedents.

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